

Docket Number: 081468-0302644
Client Reference: P-1698.000-US

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of
FLAGELLO ET AL.

Application No.: 10/698,012

Filed: October 31, 2003



Group Art Unit: 2854

Examiner: Unassigned

Confirmation No.: 7154

For: LITHOGRAPHIC APPARATUS AND DEVICE MANUFACTURING METHOD

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom. Applicants respectfully request the Examiner return an initialed copy of the enclosed Form PTO-1449 to Applicants with the next Office Communication to indicate that the references have been considered, per MPEP § 609.

The undersigned notes that copies of U.S. references are not required in Information Disclosure Statements (IDS's) in applications filed after June 30, 2003. WO99/49504, submitted with the application on October 31, 2003, is being resubmitted with a translation.

This IDS is being filed (a) within three months of the U.S. filing date of this non-CPA application, or (b) before the mailing date of the first Office Action on the merits in the present application. No certification or fee is required.

Respectfully Submitted,

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Date: March 24, 2004

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FORM PTO-1449 (modified)
To: U.S. Department of Commerce
(PW FORM PAT-1449)
Patent and Trademark Office

Atty.
Dkt. No.

M#

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**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant: FLAGELLO et al.

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Group Art Unit: 2854

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR 2004/0000627	01/2004	Schuster	250	201.2	
	BR 6,600,547 B2	07/2003	Watson et al.	355	30	
	CR 2002/0163629 A1	11/2002	Switkes et al.	355	53	
	DR 2004/0021844 A1	02/2004	Suenaga	355	67	
	ER 3,573,975	04/1971	Dhaka et al.	117	212	
	FR 3,648,587	03/1972	Stevens	95	44 R	
	GR 4,346,164	08/1982	Tabarelli et al.	430	311	
	HR 4,396,705	08/1983	Akeyama et al.	430	326	
	IR 4,480,910	11/1984	Takanashi et al.	355	30	
	JR 4,509,852	04/1985	Tabarelli et al.	355	30	
	KR 5,040,020	08/1991	Rauschenbach et al.	355	53	
	LR 5,121,256	06/1992	Corle et al.	359	664	
	MR 5,610,683	03/1997	Takahashi	355	53	
	NR 5,715,039	02/1998	Fukuda et al.	355	53	

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclose	No
	OR WO 2004/019128 A2	03/2004	WIPO	Omura et al.	X			
	PR JP 58-202448	11/1983	Japan	Yoshio et al.	X			
	QR WO99/49504	09/1999	WIPO	Fukami et al.	X		X	
	RR WO 03/077036 A1	09/2003	WIPO	Schuster	X			
	SR EP 0023231 B1	02/1981	Europe	Tabarelli et al.	X			
	TR EP 0418427 A2	03/1991	Europe	Miyake	X			
	UR EP 1039511 A1	09/2000	Europe	Hirukawa et al.	X			
	VR DD 224448 A1	07/1985	E. Germany	Hesse et al.		X		
	WR DD 242880 A1	02/1987	E. Germany	Kuch et al.		X		
	XR FR 2 474 708	07/1981	France	Letellier		X		

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

YR	S. Owa et al., "Potential performance and feasibility of immersion lithography," NGL Workshop 2003, July 10, 2003	X		
ZR	H. Hogan, "New Semiconductor Lithography Makes a Splash," Photonics Technology Word, October 2003, pp.1-3	X		
AAR	M. Switkes et al., "Immersion Lithography at 157 nm," MIT Lincoln Lab, Orlando 2001-1, December 17, 2001	X		

Examiner

Date Considered:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified) To: U.S. Department of Commerce (PW FORM PAT-1449) Patent and Trademark Office					Atty. Dkt. No.	M#	Client Ref.		
					0302644		P-1698.000-US		
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U.S. PATENT DOCUMENTS									
Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)		
	BBR	5,825,043	10/1998	Suwa	250	548			
	CCR	5,900,354	05/1999	Batchelder	430	395			
	DDR	6,191,429 B1	02/2001	Suwa	250	548			
	EER	6,560,032 B2	05/2003	Hatano	359	656			
	FFR	6,603,130 B1	08/2003	Bisschops et al.	250	492.1			
	GGR	6,633,365 B2	10/2003	Suenaga	355	53			
	HHR	2003/0123040 A1	07/2003	Almogy	355	69			
	IIR	2003/0174408 A1	09/2003	Rostalski et al.	359	642			
	JJR								
	KKR								
	LLR								
	MMR								
FOREIGN PATENT DOCUMENTS									
		Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
						Enclosed	No	Enclose	No
	NNR	JP 62-65326	03/1987	Japan	Noboru	X			
	OOR	JP 62-121417	06/1987	Japan	Koji	X			
	PPR	JP 63-157419	06/1988	Japan	Mamoru	X			
	QQR	JP 4-305915	10/1992	Japan	Hisao et al.	X			
	RRR	JP 4-305917	10/1992	Japan	Hisao et al.	X			
	SSR	JP 6-124873	05/1994	Japan	Kazuo	X		X	
	TTR	JP 7-220990	08/1995	Japan	Hiroshi et al.	X			
	UUR	JP 10-228661	08/1998	Japan	Kotaro	X			
	VVR	JP 10-255319	09/1998	Japan	Masashi et al.	X			
	WWI	JP 10-303114	11/1998	Japan	Kyoichi	X		X	
OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)									
	XXR	M. Switkes et al., "Immersion Lithography at 157 nm," J. Vac. Sci. Technol. B., Vol. 19, No. 6, Nov./Dec. 2001, pp. 2353-56				X			
	YYR	M. Switkes et al., "Immersion Lithography: Optics for the 50 nm Node," 157 Anvers-1, Sept. 4, 2002				X			
	ZZR	B. J. Lin, "Drivers, Prospects, and Challenges for Immersion Lithography," tsmc, Inc., Sept. 2002				X			
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	AAA					
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	CCC					
	DDD					
	EEE					
	FFF					
	GGG					
	HHH					
	III					
	JJJ					
	KKK					
	LLL					
	MMM					
	NNN					

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	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclose	No
	OOO JP 10-340846	12/1998	Japan	Taketo	X		X	
	PPP JP 2001-91849	04/2001	Japan	Shinichiro et al.	X			
	QQQ							
	RRR							
	SSS							
	TTT							
	UUU							
	VVV							
	WWW							

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

XXX	B.J. Lin, "Proximity Printing Through Liquid," IBM Technical Disclosure Bulletin, Vol. 20, No. 11B, April 1978, p. 4997	X			
YYY	B.J. Lin, "The Paths To Subhalf-Micrometer Optical Lithography," SPIE Vol. 922, Optical/Laser Microlithography (1988), pp. 256-269	X			
ZZZ	G.W.W. Stevens, "Reduction of Waste Resulting from Mask Defects," Solid State Technology, August 1978, Vol. 21 008, pp. 68-72	X			
AAA	T. Matsuyama et al., "Nikon Projection Lens Update," Nikon Corporation, (date unknown)	X			

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	CCC					
	DDD					
	EEE					
	FFF					
	GGG					
	HHH					

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PATENT DOCUMENTS						English Abstract		Translation Readily Available		
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	IIIR									
	JJJJ									
	KKK									
	LLLL									
	MMN									
	NNN									
	OOO									
	PPP									

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

QQQ	S. Owa et al., "Immersion lithography; its potential performance and issues," SPIE Microlithography, 5040-186, Feb. 27, 2003	X			
RRR	Nikon Precision Europe GmbH, "Investor Relations - Nikon's Real Solutions", May 15, 2003	X			
SSS	H. Kawata et al., "Optical Projection Lithography using Lenses with Numerical Apertures Greater than Unity," Microelectronic Engineering 9 (1989); pp. 31-36	X			
TTT	J.A. Hoffnagle et al., "Liquid Immersion Deep-Ultraviolet Interferometric Lithography," J. Vac. Sci. Technol. B., Vol. 17(6), Nov/Dec 1999	X			
UUU	B.W. Smith et al., "Immersion Optical Lithography at 193nm, FUTURE FAB International, Issue 15, July 11, 2003	X			
VVV	H. Kawata et al., "Fabrication of 0.2µm Fine Patterns Using Optical Projection Lithography with an Oil Immersion Lens," Jpn. J. Appl. Phys. Vol. 31 (1992), pp. 4174-4177	X			
WW	G. Owen et al., "1/8µm Optical Lithography," J. Vac. Sci. Technol. B., Vol. 10, No. 6, Nov/Dec. 1992, pp. 3032-3036	X			
XXX	Owa et al., "Advantage and feasibility of immersion lithography", Nikon Corporation, (date unknown)				

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